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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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KING & SPALDING LLP 1180 PEACHTREE STREET ATLANTA, GA 30309			EXAMINER CORDRAY, DENNIS R	
			ART UNIT 1731	PAPER NUMBER

DATE MAILED: 09/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/643,131

Applicant(s)

CURHAM ET AL.

Examiner

Dennis Cordray

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-6, 8-18 and 20-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Rohlf (EP 0599440).

Claims 1, 3-5, 8-9 and 20-21: Rohlf discloses a papermaking process wherein a composition comprising a nonionic surfactant is contacted with the pulp and papermaking surfaces to control the deposition of pitch onto the papermaking surfaces (Abstract). Numerous examples are given of nonionic surfactants having HLBs between 12 and 18 (pp 8-10, Tables 1-3). Rohlf discloses that the treatment is effective for natural (virgin) pulp (p 2, lines 56-57). Rohlf also discloses that the treatment can be continuous (p 6, line 49).

Claim 6: Rohlf discloses that suitable nonionic polymers include ethoxylated alkyl phenols and alcohols (p 3, lines 42-46). The examples previously indicated having the claimed range of HLB would possess the claimed degree of ethoxylation.

Claims 10, 11: The compositions disclosed by Rohlf are the same as those claimed in the instant invention. Where the claimed and prior art apparatus or product are identical or substantially identical in structure or composition, a *prima facie* case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252,

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1255, 195 USPQ 430, 433 (CCPA 1977). In other words, when the structure recited in the reference is substantially identical to that of the claims, the claimed properties or functions are presumed to be inherent. Thus, the compositions disclosed by Rohlf in an amount effective for "controlling pitch deposits derived from natural pulp" (p 3, lines 31 and 32) would not adversely affect the sizing of paper produced and would not increase water retention of the paper.

Claims 12, 22: Rohlf discloses that the papermaking operation includes a felt dewatering stage and that the composition can be sprayed onto the felt using a shower system (p 6, lines 39-41, 51-52). Rohlf also teaches that paper machine dewatering felts are susceptible to pitch deposits, which block the felts and hinder drainage (p 2, lines 15-16).

Claim 13: It is well known that pulp suspensions that include recycled fibers usually contain excess anionic charges, thus have a cationic demand (as taught by Persson et al (6100322), col 1, lines 22-31). The pulp used in the instant invention can include recycled fibers and thus would inherently have a cationic demand.

Claims 14-18: Rohlf discloses that the composition can include a nonionic surfactant and a cationic polymer in the ratio of 50:1. Such a composition "consists essentially" of the nonionic surfactant. Rohlf also discloses that the composition can be applied at full strength (i.e.-without solvent) (p 6, lines 51-52). Rohlf does not disclose any other agents in the process, therefore anticipates that the composition can be used in the absence of wet strength resins, anionic agents and other deposition control agents.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rohlf.

Claim 2: Rohlf discloses that the composition also comprises a cationic polymer and that the cationic polymer alone is effective in treating sticky materials derived from secondary (recycled) fiber pulps whereas the nonionic surfactant was needed for treating pitch in natural pulp (p 3, lines 37-41). It would have been obvious to one of ordinary skill in the art at the time of the invention to treat the natural pulp separately prior to mixing with the secondary pulp in view of Rohlf in order to save on costs and avoid wasting chemicals.

Claim 23: Rohlf discloses a variety of nonionic surfactants with high HLB values. It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute one surfactant for the other in view of Rohlf as functionally equivalent options.

Claims 7 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rohlf in view of Barnett et al (4861429).

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Claim 7: Rohlf discloses that suitable nonionic polymers include block copolymers of alkylene oxides (p 3, lines 42-46). Rohlf does not disclose the structural description of the block copolymers.

Barnett et al teaches that nonionic surfactants are known in the art for controlling deposition of pitch and stickies in the papermaking felts (col 2, lines 25-27). Barnett et al also discloses that the suitable nonionic surfactants include block copolymers of ethylene oxide (EO) and propylene oxide (PO) having the structure



where A and C are 1300 – 5000 molecular weight and B is 2000 – 5000 molecular weight (col 4, lines 16-25). The compositions significantly overlap those claimed in the instant invention.

The art of Rohlf, Barnett et al and the instant invention are analogous in that they pertain to inhibiting pitch deposition in papermaking processes. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the claimed block copolymers in the contaminant composition of Rohlf in view of Barnett et al to as well known and functionally equivalent options.

Claim 19: Rohlf does not disclose that a second composition can be applied to the pres felt from the dewatering stage.

Barnett et al teaches that typical prior art methods used surfactant emulsification of contaminants and surfactant wetting of felts (col 2, line 68 and col 3, lines 1-5). The art of Rohlf, Barnett et al and the instant invention are analogous in that they pertain to

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inhibiting pitch deposition in papermaking processes. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply a second contaminant deposition control composition to the press felt from the press felt dewatering stage in the process of Rohlf in view of Barnett et al to make the felt fibers less receptive to pitch deposits.

Response to Arguments

The reply filed on 6/26/2006 fails to treat every rejection in the prior Office action. The submitted reply only mentions Claims 2, 17, 18, which are dependent on rejected Claim 1, and independent Claim 20. No amendments to the claims were submitted. After a careful review of the cited prior art in relation to all of the claims, Applicant's response appears to be *bona fide*, however future replies should address every ground of objection and rejection in the prior Office action.

Applicant's arguments filed 6/26/2006 have been fully considered but they are not persuasive.

Applicant argues that Rohlf does not teach the use of a nonionic high HLB surfactant "in the substantial absence of a second deposition inhibiting control agent." Applicant further argues that Rohlf teaches the use of a cationic polymer along with the high HLB non-ionic surfactant.

Rohlf teaches that the weight ratio of non-ionic surfactant to cationic polymer can be in the range of 50:1 to 1:1. Thus, in some embodiments, the surfactant is present at 98% of the pitch deposition control composition while the cationic polymer is present at

2%. While the instant Specification expressly excludes the use of an anionic dispersant in the treating composition (see p 11, 2nd full par), neither the instant claims nor the Specification excludes a cationic polymer. Claim 2 recites, "in the substantial absence of a second deposition inhibiting agent," and Claim 20 recites, "consists essentially of a non-ionic high HLB surfactant." Both the Specification and the claims thus contemplate some minor amount of additional materials (e.g.-a cationic polymer). For lack of guidance in the Specification as to the meaning of "in the substantial absence of" and "consists essentially of," it is the Examiner's opinion that a composition comprising 98% non-ionic surfactant and 2% cationic polymer consists essentially of the non-ionic surfactant and has a substantial absence of a second deposition inhibiting agent, thus falls within the embodiments of the instant invention. As detailed above, Rohlf discloses that the cationic polymer alone is effective in treating sticky materials derived from secondary (recycled) fiber pulps but not natural (virgin) pulps, and that the nonionic surfactant was needed for treating pitch in natural pulp (p 3, lines 37-41). It would have been obvious to one of ordinary skill in the art to determine the optimal composition for treating a particular pulp and the disclosure of Rohlf teaches that some pulps can be treated with a composition comprising 98% non-ionic surfactant. Since the non-ionic surfactant is not necessary for treating secondary pulps, it would have been obvious to one of ordinary skill in the art at the time of the invention to treat the natural pulp separately prior to mixing with the secondary pulp in view of Rohlf in order to save on costs and avoid wasting chemicals.

From section 2111.03 of the MPEP: Transitional Phrases

The transitional phrase "consisting essentially of" limits the scope of a claim to the specified materials or steps "and those that do not materially affect the basic and novel characteristic(s)" of the claimed invention. In re Herz, 537 F.2d 549, 551-52, 190 USPQ 461, 463 (CCPA 1976) (emphasis in original) (Prior art hydraulic fluid required a dispersant which appellants argued was excluded from claims limited to a functional fluid "consisting essentially of" certain components. In finding the claims did not exclude the prior art dispersant, the court noted that appellants' specification indicated the claimed composition can contain any well-known additive such as a dispersant, and there was no evidence that the presence of a dispersant would materially affect the basic and novel characteristic of the claimed invention. The prior art composition had the same basic and novel characteristic (increased oxidation resistance) as well as additional enhanced detergent and dispersant characteristics.). "A consisting essentially of claim occupies a middle ground between closed claims that are written in a consisting of format and fully open claims that are drafted in a comprising format." PPG Industries v. Guardian Industries, 156 F.3d 1351, 1354, 48 USPQ2d 1351, 1353-54 (Fed. Cir. 1998). See also Atlas Powder v. E.I. duPont de Nemours & Co., 750 F.2d 1569, 224 USPQ 409 (Fed. Cir. 1984); In re Janakirama-Rao, 317 F.2d 951, 137 USPQ 893 (CCPA 1963); Water Technologies Corp. vs. Calco, Ltd., 850 F.2d 660, 7 USPQ2d 1097 (Fed. Cir. 1988). For the purposes of searching for and applying prior art under 35 U.S.C. 102 and 103, absent a clear indication in the specification or claims of what the basic and novel characteristics actually are, "consisting essentially of" will be construed as equivalent to "comprising." See, e.g., PPG, 156 F.3d at 1355, 48 USPQ2d at 1355 ("PPG could have defined the scope of the phrase consisting essentially of for purposes of its patent by making clear in its specification what it regarded as constituting a material change in the basic and novel characteristics of the invention.").

The previous rejections are maintained and the Action made final.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Cordray whose telephone number is 571-272-8244. The examiner can normally be reached on M - F, 7:30 -4:00 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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